

Notice of Allowability

Application No.

10/584,049

Applicant(s)

SAOTOME ET AL.

Examiner

/Paul Ip/

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to claims 1-5 filed on 6/22/2006.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

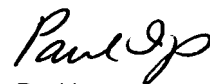
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 6/22/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


Paul Ip
Primary Examiner
AU 2837
571-272-1941

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Claims 1-5 have been considered in view of the specification and the drawings of this application with respect to the references of the record. Claims 1-5 have been interpreted in terms of means plus function in view of the specification and the drawings of this application.

The references of the record taken alone or in combination fail to teach or suggest:

first sensor for generating a detected output of an angular velocity; a second sensor for generating a detected output of an angular velocity with lower drift of the detected output than in the first sensor; a high-frequency pass filter for being inputted the detected output of the first sensor and outputting higher frequency components than a predetermined frequency in the detected output; storage means for sequentially storing output values of the high-frequency pass filter; subtraction means for sequentially performing operations of subtracting an output value at a time a predetermined time period earlier, which is stored in the storage means, from the output value of the high-frequency pass filter; and addition means for sequentially performing operations of adding a value obtained by the subtraction means to the output value of the second sensor, wherein a value obtained by the addition means is obtained as an angular velocity measurement.

two legs extending from an upper body;

an angular velocity measuring device, which includes: a first sensor for generating a detected output of an angular velocity; a second sensor for generating a detected output of an angular velocity with lower drift of the detected output than in the first sensor; a high-frequency pass filter for receiving an input of the detected output of the first sensor and outputting higher frequency components than a predetermined frequency in the detected output; storage means for sequentially storing output values of the high-frequency pass filter; subtraction means for sequentially performing operations of subtracting an output value at a time a predetermined time period earlier, which is stored in the storage means, from the output value of the high-frequency pass filter; and addition means for sequentially performing operations of adding a value obtained by the subtraction means to the output value of the second sensor, wherein a value obtained by the addition means is obtained as an angular velocity measurement;

posture angle estimation means for estimating a posture angle of a predetermined portion at least on the

basis of the angular velocity measurement obtained by the angular velocity measuring device; and

control means for generating a joint drive command signal of the robot at least on the basis of the posture angle estimated by the posture angle estimation means,

wherein a joint actuator for driving the joint of the robot is activated according to the joint drive command signal.

The references of the record taken alone or in combination fail to teach or suggest the combination of all the means plus functions shown in figure 1 as recited in claims 1 and 4.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Paul Ip/ whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571)-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



/Paul Ip/
Primary Examiner
Art Unit 2837

7/31/2007